Brown Bear Research Project 2015: July Update

Changing Tides is a three-year project investigating the relationships between coastal brown bears, people and marine intertidal invertebrates such as mussels and clams. The large brown bear population found along the Alaska Peninsula is made possible by the abundance of coastal food resources such as salmon, shellfish, and salt-tolerant sedges — a grass-like plant that grows in coastal meadows.

The project includes two components involving the study of bears: tracking the movements of nine collared female bears; and the direct field observations by researchers stationed on the coast. By tracking the movements of bears within the park and assessing body composition, biologists can examine bear use of different foraging areas and the importance of different food resources to overall health and survival.

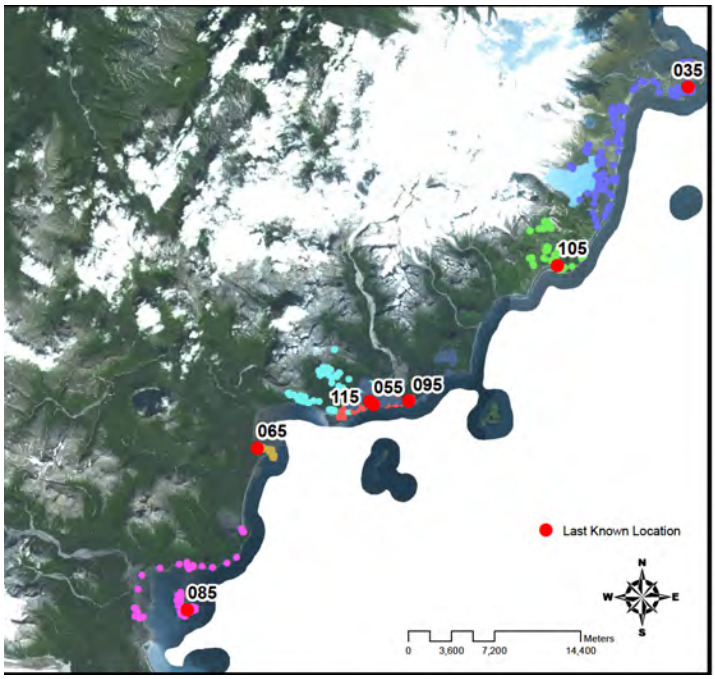
Spring update

Last May, nine female coastal brown bears were fitted with GPS collars. The bears were also weighed, had their body fat content assessed, and had hair and blood samples taken to screen for disease and determine their genetic background and diet history. The measurements and samples will be used to evaluate changes in body composition over the summer months. This will also be compared to data collected from bears within other parks throughout Alaska. Since May, biologists have been tracking each bear's movement along the coast (Map 1).

Upcoming Activities

This July, bears will be recaptured. They will be weighed and measured, and hair and blood samples will be collected as they were in May. These measurements and samples will be used to assess their current body condition after spring feeding. Collars will be adjusted as needed.

In early October, the bears will once again be examined for a final body condition assessment. This will provide insight into the relative importance of late season forage to overall health and survival as bears begin to get ready for winter denning. The collars will also be removed during this final recapture. In the unlikely event that biologists cannot relocate a specific bear, the collar is programmed with an automatic release mechanism that will detach the collar from the bear on a predetermined date.



Map 1. Movement of seven of the nine collared bears along the Katmai Coast as of June 30th, 2015. Each bear is represented by a different colored dot. The location of each bear is transmitted daily from the collar, producing a new dot on the map. This spring, the collared females have stayed within relatively small home ranges. Over the next few weeks, as salmon begin to return to their natal streams, the bears may begin to expand their ranges or migrate to new territories along these waterways. Two bears fitted with video collars are not represented on this map but have also been staying within a relatively small area, one in the Cape Douglas area, the other on an island off of Hallo Bay. Video footage will be downloaded during the July and October recapture events and will provide a unique perspective of bear feeding activities.

Questions or comments? Contact:

Carissa Turner, Coastal Biologist
Katmai National Park, King Salmon, AK
(907) 246-2104
carissa_n_turner@nps.gov

Grant Hilderbrand, Wildlife Biologist
NPS Alaska Region, Anchorage, AK
(907) 644-3578
grant_hilderbrand@nps.gov